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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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10/743,834

12/24/2003

Hirokazu Sakai

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03/18/2008

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EXAMINER

VENKAT, JYOTHSNA A

ART UNIT

PAPER NUMBER

1615

NOTIFICATION DATE

DELIVERY MODE

03/18/2008

ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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| | | | |
|------------------------------|---|-------------------------------------|--|
| Office Action Summary | Application No. 10/743,834 | Applicant(s) SAKAI ET AL. | |
| | Examiner JYOTHSNA A. VENKAT Ph. D | Art Unit 1615 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 December 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-6 and 8-13 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-6 and 8-13 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Receipt is acknowledged of IDS filed on 11/7/07 and amendment to claims, copy of certified foreign translated document and remarks all filed on 12/26/07. Claims 11-13 has been added as per applicants amendment dated 12/26/07. Claims 1-6 and 8-13 are pending in the application and the status of the application is as follows:

The following new ground of rejection is necessitated by the amendment.

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claim 8 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

This claim is redundant since the limitation of this claim is in claim 1.

Claim Rejections - 35 USC § 103

Claims 1-5, and 8-13 are rejected under 35 U.S.C. 103(a) as being obvious over U. S. Patent 6,685,953 ('953) PGPUB 20040115162 ('162) all taken alone and combined with U. S. Patent 5,977,038 ('038).

The instant application is claiming hair cosmetic composition comprising:

1. *Diamide formula A*
2. *Cationic surfactant (species is quaternium salt)*
3. *Silicone*
4. *Non-ionic or amphoteric surfactant*

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Patent '953 teaches external preparations using the same claimed diamide. See the abstract, see col.4, formula F for the elected diamide, see col.7, lines 41-56 and see col.8, lines 8-30, where patent teaches using diamide in hair care art. Patent at col.7, line 61 teaches adding cationic surfactant along with non-ionic and amphoteric surfactant to diamide. See col.8, ll 1-29 wherein patent clearly teaches diamide in hair cosmetic.

PGPUB '162 teaches dermatological preparations using the same claimed diamide. See the abstract, see page 3, formula F for the elected diamide. PGPUB at paragraph 26 teaches adding cationic surfactants, non-ionic and amphoteric surfactant to diamide. See paragraphs 27-31, wherein patent clearly teaches diamide in hair cosmetic.

The difference between the instant application and the commonly owned patent or PGPUB '162 is both these references do not teach silicone with particle size. However patent '038 teaches shampoo compositions using the silicone with particle size. See col.3, ll 41 through col.4, ll 20 for silicone with particle size. Patent at col.4, ll 30-47 teaches adding cationic surfactant and non-ionic surfactants to the compositions. See also col.2, ll 15-40 for specific non-ionic and amphoteric surfactant.

Accordingly it would be obvious to one of ordinary skill in the art at the time the invention was made to modify the hair compositions using the diamide of patent along with cationic, non-ionic and amphoteric surfactant and add silicones with particle size expecting beneficial effect. One of ordinary skill in the art would be motivated to add silicones since the idea of combining the ingredients flows logically from the art for having been used in the hair care compositions. One of ordinary skill in the art would be motivated to add silicones into the compositions with the reasonable expectation of success that the compositions with diamide,

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cationic and non ionic surfactant impart good touch feel to the hair and adding silicones with particle size provide conditioning effects to the hair. This is a prima facie case of obviousness.

Response to Arguments

3. Applicant's arguments filed 12/26/07 have been fully considered but they are not persuasive.

Applicants point out that Hoshino et al '953 and Hoshino et al '162 are identical in subject matter, since Hoshino et al '162 issued from a divisional application of the application which issued as Hoshino et al '953, therefore, discussion below with regard to the Hoshino et al documents will be to Hoshino et al '953, referred to as Hoshino et al per se.

Applicants argue:

“While Applicants do not challenge the combination of Hoshino et al and Birtwistle et al in the formulation of a shampoo composition, wherein the surfactant is an anionic, nonionic, zwitterionic or amphoteric surfactant, or mixtures thereof, it is only with the present disclosure as a guide that one of ordinary skill in the art would combine a disclosure of a non- cationic surfactant-containing shampoo with a disclosure for a cationic surfactant-containing non-shampoo. Birtwistle et al discloses and suggests nothing with regard to what effect their silicone would have when combined with a cationic surfactant, i.e., a type of surfactant particularly omitted from their component (i). Indeed, one of ordinary skill in the art reading this prior art could not have predicted the results demonstrated in the specification herein when each of components (A), (B) and (C) are present and used in the present pH range. Examples 1-3 are according to the present invention. Comparative Examples 1-3 are not. Comparative Example 1 lacks

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component (C); Comparative Example 2 lacks component (A); and Comparative Example 3 contains all three components but its pH is outside the range of the present claims. See the compositions and the results in Table 1 at paragraph [0088] of the specification. The Examples and Comparative Examples were evaluated for smoothness of hair, moist feeling of hair, prevention of split ends or breakage of hair and storage stability. The superior results obtained using the examples of the invention is manifest”.

In response to the above argument, patent ‘953, PG PUB ‘162 and patent ‘038 all teach shampoo compositions. Patent ‘953 at col.7, last paragraph suggest that the compositions can have nonionic or cationic or amphoteric and anionic. Surfactants are conventionally used in hair care (shampoo or shampoo & conditioner known as 2 in 1) for cleansing the hair. Patent '038 at col.1, ll 10-15, teaches that silicones as conditioning agents in cosmetic formulations are well known. See below.

BACKGROUND AND PRIOR ART

The use of silicones as conditioning agents in cosmetic 10 formulations is well known and widely documented in the patent literature. Generally, dispersed droplets of the silicone oil are suspended in the composition, which is then applied to the hair to deposit the silicone material on the hair shaft.

Patent ‘038 also teaches that emulsified particles of silicone condition the hair.

Emulsified particles of silicone are formed from silicone and emulsifier. See below.

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SHAMPOO COMPOSITIONS AND METHOD

FIELD OF THE INVENTION

This invention relates to shampoo compositions, and more particularly to shampoo compositions containing 5 emulsified particles of silicone, which compositions condition the hair leaving it softer and more manageable.

Therefore one of skill in the hair care art would prepare compositions by using the cationic surfactant and diamide and combine it with silicone expecting predictable results, which are cleansing the hair and conditioning the hair.

In response to applicant's argument regarding unexpected results with respect to examples 1-3 in the specification, the results are expected in view of having silicone and diamide, since diamide is a humectant and silicone provides the hair softness feeling and more manageable. The test results are not commensurate with the scope of claims. See below for

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examples 1-3 and comparative examples 1-3.

Table 1

| | | (wt. %) | | | | | |
|------------|--|--------------------|--------------------|--------------------|----------------------|--------------------|--------------------|
| | | Examples | | | Comparative Examples | | |
| | | 1 | 2 | 3 | 1 | 2 | 3 |
| (A) | Amphipathic amide lipid A | 2 | 2 | - | 2 | - | 2 |
| | Amphipathic amide lipid B | - | - | 2 | - | - | - |
| (B) | Stearyltrimethylammonium chloride | 3 | 3 | 3 | 3 | 3 | 3 |
| (C) | Dimethylpolysiloxane emulsion ^{*1} | 2 | 2 | - | - | 2 | - |
| | Amino-modified silicone emulsion ^{*2} | - | 0.5 | 0.5 | - | - | 0.05 |
| Others | Behenyl alcohol | 8 | 8 | 8 | 8 | 8 | 8 |
| | Dipropylene glycol | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 |
| | Benzylloxy ethanol | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 |
| | Phenoxy ethanol | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 |
| | pH regulator (sodium hydroxide, citric acid) | q.s. ^{*3} | q.s. ^{*3} | q.s. ^{*3} | q.s. ^{*3} | q.s. ^{*3} | q.s. ^{*3} |
| | Purified water | Balance | Balance | Balance | Balance | Balance | Balance |
| pH | | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 7 |
| Evaluation | Smoothness of hair | A | A | A | C | C | B |
| | Moist feeling of hair | A | A | A | B | C | C |
| | Prevention of split ends or breakage of hair | A | A | B | B | C | C |
| | Storage stability | B | B | B | B | B | D |

*1: "CF-2460" (trade name; product of Dow Corning Toray Silicone, a 75 wt.% emulsion, average particle size: about 100 μm)

*2: "SM8704C" (trade name; product of Dow Corning Toray Silicone, a 40 wt.% emulsion, average particle size: about 0.5 μm)

*3: An amount to adjust the pH

The silicone claimed is specific to two types of emulsions, the average particle size being 0.5 microns or 100 microns. None of the claims recite that the silicone is in the form of emulsions. Note that claim 9 recites particle size from 0.001 to 200 microns. Does CF-2460 and SM8740C is sold in having particle size from 0.001-200 microns?

The cationic surfactant is specific to "stearyltrimethylammonium chloride".

The weight percent is specific for components A-C. Only claim 11 meets the requirement with respect to components B and C. What is the value for smoothness of hair, moist feeling of hair and prevention of splitting agents or breaking of hair when the diamide is 0.2% of claim 11?

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In conclusion, the test results in the specification are not commensurate with the scope of claims.

Claims 1-6 and 8-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of EP 1,166, 766 ('766) and U. S. Patents '038 and 5,034,218 ('218).

The instant application is claiming hair cosmetic composition comprising:

- 1. Diamide formula A*
- 2. Cationic surfactant (species is quaternium salt)*
- 3. Silicone*
- 4. Non-ionic or amphoteric surfactant*

EP '166 teaches external preparations using the same claimed diamide. See the abstract, see page 5, formula F for the elected diamide. EP '766 at paragraph 22 teaches adding cationic surfactant along with non-ionic and amphoteric surfactant to diamide. EP at paragraphs 23-26 clearly teaches diamide in hair cosmetic. EP does not teach silicone with particle size or specific cationic surfactants. However patent '038 teaches shampoo compositions using the silicone with particle size. See col.3, ll 41 through col.4, ll 20 for silicone with particle size. Patent at col.4, ll 30-47 teaches adding cationic surfactant and non-ionic surfactants to the compositions. See also col.2, ll 15-40 for specific non-ionic and amphoteric surfactant. Patent '218 teaches stable conditioning shampoo using cationic surfactants and silicone emulsion. See the abstract; see col.5, ll 23 through col. 6 lines 53 for the cationic surfactant and specific cationic surfactant that are claimed in the instant application. See col.7, ll 33-52 for silicones. See also paragraph bridging col.s 9-10 for the silicones with particle size. See the examples.

Accordingly it would be obvious to one of ordinary skill in the art at the time the invention was made to modify the hair compositions using the diamide of EP '766 and add silicones with particle size and cationic surfactant expecting beneficial effect. One of ordinary skill in the art would be motivated to add silicones and cationic surfactant since the idea of combining the ingredients flows logically from the art for having been used in the hair care compositions. One of ordinary skill in the art would be motivated to add silicones and cationic surfactant into the compositions with the reasonable expectation of success that the compositions with diamide, cationic and non ionic surfactant impart good touch feel to the hair and adding silicones with particle size and cationic surfactant provide conditioning properties such as softness to the hair. This is prima facie case of obviousness.

Response to Arguments

4. Applicant's arguments filed 12/26/07 have been fully considered but they are not persuasive.

5. Applicants argue:

“EP Hoshino et al is identical in subject matter to above-discussed Hoshino et al, since each claims priority to the same Japanese application filed April 8, 1999 (11-101076), and are thus from the same patent family. Duvel is drawn to a hair conditioning shampoo containing an anionic cleaning surfactant, a cationic di-long chain alkyl quaternary nitrogen-containing conditioning agent, a non-volatile silicone, and an anionic cross-linked polymeric suspending agent (Abstract). If the above prior art were combined, the result would necessarily include an anionic surfactant. However, the presently-claimed invention necessarily excludes the presence of an anionic surfactant.

Nevertheless, the above combination of references could not have predicted the superior results obtained by the present invention, as discussed above”.

In response to the above argument, the expression “ comprising “ in the claims is inclusive of anionic surfactant and the claims of the instant application do not exclude anionic surfactant. The use of the term “comprising” permits the presence of other ingredients and does not preclude the presence of other ingredients, active or inactive, even in major amounts.

Moleculon Research corp., v. CBS, Inc., 793 F. 2d 1261, 229 USPQ 805 (FED. Cir. 1986); In **re Baxter**, 656 F. 2d 679, 210 USPQ 795, 803 (CCPA 1981).

In response to unexpected results, the results are not commensurate with the scope of claims as discussed above.

6. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JYOTHSNA A. VENKAT Ph. D whose telephone number is 571-272-0607. The examiner can normally be reached on Monday-Friday, 10:30-7:30:1st Friday off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, MICHAEL WOODWARD can be reached on 571-272-8373. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

**/JYOTHSNA A. VENKAT Ph. D/
Primary Examiner, Art Unit 1615**